

2. The method as claimed in claim 1, wherein the method further comprises:

f) altering the activation signal in response to the increase or decrease so as to create a feedback loop.

3. The method as claimed in claim 1, wherein the element is selected from the group of conductive active material elements consisting essentially of shape memory alloys, electro-active polymers, and piezoelectric composites.

4. The method as claimed in claim 1, wherein the mid-stroke positions are relocatable.

5. The method as claimed in claim 1, wherein step d) further includes the steps of inducing or reducing the stress at a plurality of mid-stroke positions, counting the mid-stroke positions, and determining a final position by counting the mid-stroke positions.

6. The method as claimed in claim 1, wherein the load includes a coil spring presenting a selectively modifiable damping coefficient, and step d) further includes the steps of selectively modifying the damping coefficient when the load is at said at least one mid-stroke position, so as to induce or reduce the stress.

7. The method as claimed in claim 1, wherein step d) further includes the steps of physically engaging the load with a fixed member at said at least one mid-stroke position, so as to induce or reduce the stress.

8. The method as claimed in claim 1, wherein step d) further includes engaging the load with a magnetic field, so as to induce or reduce the stress.

9. The method as claimed in claim 8, wherein step d) further includes the steps of selectively magnetizing a non-permanent magnet, so as to produce the field.

10. The method as claimed in claim 1, wherein the load engages a surface during the stroke, and the surface and load cooperatively form at least one detent defining an engaged depth at said at least one mid-stroke position, and the detent induces or reduces the stress.

11. The method as claimed in claim 10, wherein the surface and load are cooperatively configured to define a plurality of detents at a plurality of mid-stroke positions, the mid-stroke positions present absolute locations, and the surface is manipulable so as to alter the plurality of detents, locations, and/or depths.

12. The method as claimed in claim 10, wherein the surface is defined at least in part by a second active material element operable to undergo a second reversible change in fundamental property when exposed to or occluded from a second activation signal, and the second change modifies said at least one detent.

13. The method as claimed in claim 12, wherein the active material element is selected from the group consisting essentially of shape memory polymer, magnetorheological fluid, magnetorheological rubber, and electrorheological fluid.

14. The method as claimed in claim 1, wherein:

at least a portion of the load is sealably and intermediately disposed within a sheath presenting a fixed internal space, and a compressible fluid presenting a first pressure and housed within the space, so as to define first and second compartments having first and second volumes, and bifurcate the fluid; and

step d) further includes the steps of increasing or decreasing the volumes of the compartments when the load translates from the first position to the second position, compressing a portion of the fluid as a result of translating the load, and inducing the stress as a result of compressing the fluid.

15. A method of determining at least one mid-stroke position of a load driven by an active material element, said method comprising:

a) drivenly coupling the load with an active material element operable to undergo a reversible change in fundamental property when exposed to or occluded from an activation signal, such that the element is operable to translate the load between first and second positions as a result of the change, so as to define a stroke having a path;

b) positioning an ancillary circuit relative to the path;

c) exposing the element to or occluding the element from the activation signal, so as to cause the change and translate the load;

d) engaging the circuit with the load at said at least one mid-stroke position;

e) modifying the circuit as a result of engaging the circuit with the load; and

f) determining the modification, so as to identify said at least one mid-stroke position of the load.

16. The method as claimed in claim 15, wherein the circuit comprises first and second leads, and the load includes first and second contacts, and step e) further includes the steps of closing the circuit, by causing the leads and contacts to physically engage.

17. The method as claimed in claim 15, wherein the circuit includes a switch and step e) further includes the steps of toggling the switch, so as to modify the circuit.

18. The method as claimed in claim 17, wherein the switch includes a photo-interrupter emitting a light beam across the path, and step e) further includes the steps of interrupting the beam with the load at said at least one mid-stroke position.

19. The method as claimed in claim 18, wherein the load defines at least one hole and is configured such that the beam encounters one of said at least one hole intermediate adjacent mid-stroke positions, so as to reset the circuit.

20. The method as claimed in claim 17, wherein the switch includes a phototransistor exposed to light, and step e) further includes the steps of the positioned the load intermediate the phototransistor and light, when the load is at said at least one position along the stroke.

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